



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PAPERS
IN
MANUFACTURES.

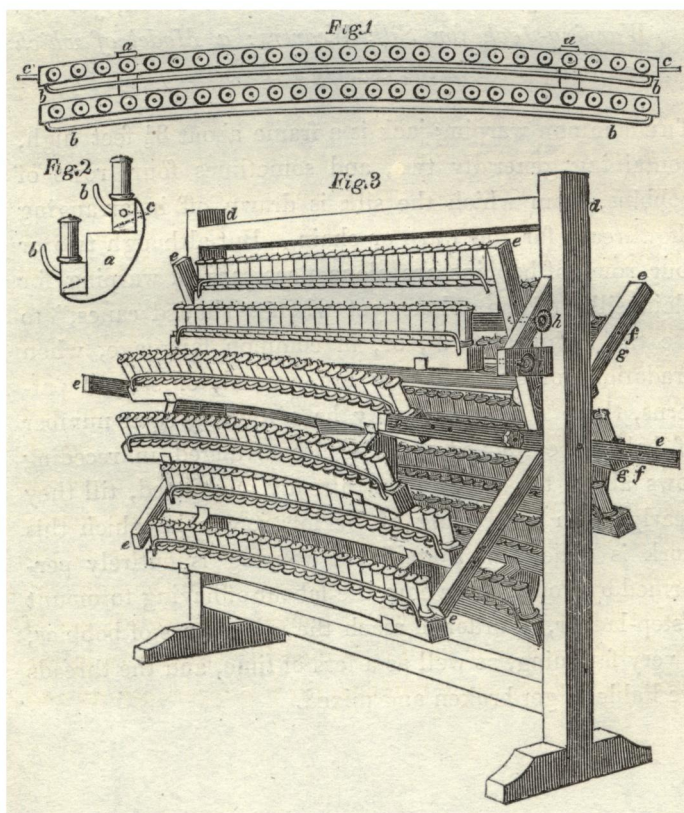
No. I.

WARPING-JACK FOR SILK WEAVERS.

The Sum of FIVE POUNDS was voted to Mr. J. HUGHES, 93, Sebright Street, Bethnal Green Road, for his Warping-Jack for Silk Weavers: a Model of which has been placed in the Society's Repository.

THE common warping-jack is a frame about $3\frac{1}{2}$ feet high, containing generally two, and sometimes four, rows of bobbins, from which the silk is drawn off in arranging the threads for the warp or chain. But although two or four rows of bobbins are alone necessary in warping for plain silks of one colour, yet when "shaded canes," to use the technical term, or, in common language, when gradations of colour-shades are wanted, or striped patterns, there must necessarily be a much greater number of bobbins employed. These are arranged in receding rows above the two or four already mentioned, till they nearly reach the ceiling of the low rooms in which this work is done. In Spitalfields warping is entirely performed by women, to whom the labour of having to mount a step-ladder, in order to reach the upper rows of bobbins, is very fatiguing, as well as a loss of time, and the threads are liable to get broken and mixed.

To avoid these inconveniences, the French have lately invented a warping-jack, the entire height of which does not exceed five or six feet. It is in the form of an open quadrangular vertical prism, between the bars of which the bobbins are inserted, and it turns horizontally on a central axis. The disadvantage of this machine is that no bobbin can be taken out, except by also removing the wire or spindle on which it revolves; and thus the risk is incurred of soiling the thread with the oil used in lubricating the spindle. Another disadvantage is, that, as the bobbins are arranged in vertical rows, a thread belonging to the upper ones breaking is very liable to get twisted round those that are placed below it.



Mr. Hughes's warping-jack consists of two uprights *dd*, fig. 3, jointed together by a cross-bar at top and bottom. In the middle of the frame is a revolving horizontal axis, from each end of which project six arms *ee*, &c. The arms at one end are connected with their corresponding ones at the other end, by means of horizontal screwed bars and nuts, which keep the whole firm and prevent any lateral shake. Each bar, at about one-third of its length from the outer end, is pierced by a hole *ff*, &c., and into the holes of each corresponding pair of bars are inserted the pins *cc*, fig. 1, which are the pivots on which swing the pairs of horizontal wooden bars that carry the bobbins. These horizontal bars are shewn in their places in fig. 3; and fig. 2 is a top view of one pair; the bars are slightly curved inward, and the two composing each pair are firmly united by two blocks *aa*, figs. 1 and 2, so that the bobbins are in a position inclining a little outwards from the perpendicular, the top of the bobbins on the lower bar being not quite as high as the bottom of the bobbins on the upper bar, as shewn in fig. 2. In front of each row of bobbins is a horizontal wire, bent at each end, so as to fasten into the bar that carries the bobbins, as shewn in fig. 3, and at *bb*, fig. 2. The use of this wire is to support the threads as they are given out from the bobbins, in order to prevent those of one row from entangling with those of another row; *gg*, fig. 3, are holes in all the radial bars at one end of the frame, for the purpose of holding firm each pair of bars that carries the bobbins as it comes in succession to the top of the frame; this is done by pushing a pin *h* through the holdfast into the bar; and to increase the steadiness of the bobbins, another pin *i* is pushed through a hole in the lower part of the same holdfast, till it projects behind and

touches the lower swinging-bar. When the required quantity of silk has been wound off the two upper rows of bobbins, the pins are withdrawn and the next lower pair are brought up.

This frame or warping-jack carries twelve rows of fifty-two bobbins each, being 624 in the whole. The height of the frame is about four feet.

No. II.

BRAZILIAN PLAT.

The LARGE SILVER MEDAL was presented to Mr. T. B. SMITH, of St. Albans, for his Application of Brazilian Plat to the Manufacture of Hats and Bonnets of Split Straw. A Specimen of the same has been placed in the Society's Repository.

HATS and other articles of straw-plat hitherto made in this country, have been manufactured either according to the common English method of platting, or according to that practised in the north of Italy, a description of which, illustrated by figures, was first published in the Transactions of this Society, Vol. XL. p. 225.

By each of these methods the straw is in the first place platted into strips or ribands, which are afterwards fastened together in a spiral coil, varying according to the form intended to be given. In the common English plat, the spires are fastened by making each in succession overlap the preceding, for about one-third, or at least one-

CORRIGENDA IN FIRST PART OF VOL. L.

- Page 11, 5 lines from bottom, for height, and place the connecting bar g, read height and place, the connecting bar g.*
- 13, *line 2, for ; then unclamp read , first unclamping.*
- 14, *5 and 8, for b read l.*
- *16, for lie read lies the bar.*
- 26, *8, after grs. add of morphia.*
- 33, *16, dele working.*
- 39, *3, for latter read former.*
- *10, after to add air and.*
- 53, *8, 11, 27, 31, for bar or bars read arm or arms.*
- *14, for 2 read 1.*
- 55, *21, dele subsequently.*
- 57, *14, dele and.*
- 58, *3 from bottom, for c c, which is a front, read which is a front view, c c.*
- 59, *5 from bottom, dele thrown back and, and insert the same in the next following line, after compartment.*
- 63, *5, for covered read high-pressure.*
- 69, *5 from bottom, for right angles read the angle.*
- 84, *9, after horns insert e.*
- 86, *12 from bottom, dele (as in figure 15).*
- 90, *1 and 2, omit alternate.*
- *6, omit half the planks retain their original thickness, and.*
- *9, omit half.*
- 91, *6 from bottom, after separate add in perspective.*
- , *last line, after Fig. 1 add the two other arms of this knee are horizontal, and at right angles to each other, one of them being parallel to the side of the ship, and the other perpendicular to it.*
- 99, *last line, for 1 read 2.*
- 100, *line 1, for 2 read 1.*
- 108, *6 from bottom, read the first part of this sentence as follows :*
A straight bar projects from the hinder part of the plate f, and to this is attached a crank g in such a position that the end of its lower arm shall move vertically whenever the bar attached to f is moved horizontally.
- 109, *4, for ring, twice repeated, read swivel.*
- 110, *23, for the sentence the weight to end of g, substitute the weight l on the spindle i balances the spiral m, the weight o on the crank balances the copper plate and horizontal bar, and another weight at the right hand end of the bar g (not shewn in the engraving), balances the weight of the wire.*
- 144, *4, after entire add machine.*
- 155, *11 from bottom, for shave read have.*